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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,243	12/02/2003	John B. Amundson	H0005445-9950 (1161.11411	3516

128 7590 11/13/2006

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EXAMINER	
PHAM, THOMAS K	

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,243	AMUNDSON ET AL.	
	Examiner	Art Unit	
	Thomas K. Pham	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. This is in response to the amendment filed 08/30/2006.

2. New claims 40-42 have been entered.

3. Applicant's amendment, with respect to the new claims 40-42 and the new issues of claims 1, 19, 30, 36 and 37, necessitated the new ground(s) of rejection presented in this Office action.

Quotations of U.S. Code Title 35

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

6. Claims 1-12, 16-24 and 28-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0195640 ("Krocker") in view U.S. Patent No. 6,608,560 ("Abrams").

Regarding claim 1

Krocker teaches the invention including an HVAC controller for use in controlling one or more components of an HVAC system, the HVAC controller comprising: a controller adapted to determine if one or more service events occurred for one or more the components of the HVAC system; and a display unit configured to display information when a service event is determined by the controller is taught as a service tool connected to an HVAC controller for information regarding the type and configuration of the components of the HVAC system determined by the controller and display all diagnostic results to a service technician and also to an expert observer for analysis (see abstract and paragraphs 42 and 43).

Krocker does not specifically teach a controller configured to control one or more components of the HVAC system during normal operation of the HVAC system, said controller adapted to determine one or more service events; and a display unit configured to display servicing information when a service event is needed is needed to an HVAC system.

However, the concepts and advantages of having one controller that is configured to control during normal operation and also adapted to determine one or more service events occurred with the system is well known and expected in the art. U.S. Patent 5,841,112 of Brooks et al. discloses a programmable controller for a cook top which is programmed to effect many features including features directly relate to service diagnostic as well as relating to normal

operation of the cook top (see C 5 L 30-33). Since the Brooks reference is reasonably pertinent to the particular problem with which the applicant was concerned, See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), it would have been obvious to one of ordinary skill in the art to include the programmable controller which adapts to both normal operation and service diagnostic to Krocker because it would provide for the purpose of convenience and compact in which no additional servicing device is needed.

Furthermore, Abrams teaches a display unit configured to display servicing information such as contractor contact information when a service event is needed to an HVAC system(see C 5 L 4-10 and C 4 L 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the display of servicing information of Abrams with the system of Krocker because it would provide the customer with readily contact to an HVAC contractor when the system in need for servicing.

Regarding claim 19

Krocker teaches the invention including a programmable controller for use in controlling one or more components of a system, the controller comprising: a controller adapted to determine if one or more service events occurred for one or more the components of the system; and a display unit configured to display information determined by the controller is taught as a service tool connected to an HVAC controller for information regarding the type and configuration of the components of the HVAC system and display all diagnostic results to a service technician and also to an expert observer for analysis (see abstract and paragraphs 42 and 43).

Krocker does not specifically teach a controller configured to control one or more components of the HVAC system during normal operation of the HVAC system, said controller

adapted to determine one or more service events; a display unit in communication with the controller and configured to display a logo when a service event is needed.

However, the concepts and advantages of having one controller that is configured to control during normal operation and also adapted to determine one or more service events occurred with the system and a display unit is in communication with the controller is well known and expected in the art. U.S. Patent 5,841,112 of Brooks et al. discloses a programmable controller for a cook top which is programmed to effect many features including features directly relate to service diagnostic as well as relating to normal operation of the cook top (see C 5 L 30-33), and FIG. 6 shows that the controller 102 is in communication with display unit 112 (see also C 5 L 14-25). Since the Brooks reference is reasonably pertinent to the particular problem with which the applicant was concerned, See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), it would have been obvious to one of ordinary skill in the art to include the programmable controller which adapts to both normal operation and service diagnostic and the display unit to Krocker because it would provide for the purpose of providing a programmable controller that could be programmed to handle multiple functional features without a need for external devices..

Furthermore, Abrams teaches a display unit configured to display servicing information such as contractor contact information when a service event is needed to an HVAC system (see C 5 L 4-10 and C 4 L 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the display of servicing information of Abrams with the system of Krocker because it would provide the customer with readily contact to an HVAC contractor when a service event is needed.

Regarding claim 30

Krocker teaches the invention including an HVAC system, comprising: one or more components for regulating a set of environmental conditions within a structure, and a controller operatively connected to said one or more components, said controller including display means for displaying information is taught as a service tool connected to an HVAC controller for information regarding the type and configuration of the components of the HVAC system and display all diagnostic results to a service technician and also to an expert observer for analysis (see abstract and paragraphs 42 and 43).

Krocker does not specifically teach a controller configured to control one or more components of the HVAC system during normal operation of the HVAC system, said controller adapted to determine one or more service events; display means for displaying servicing information when a service event is needed.

However, the concepts and advantages of having one controller that is configured to control during normal operation and also adapted to determine one or more service events occurred with the system is well known and expected in the art. U.S. Patent 5,841,112 of Brooks et al. discloses a programmable controller for a cook top which is programmed to effect many features including features directly relate to service diagnostic as well as relating to normal operation of the cook top (see C 5 L 30-33). Since the Brooks reference is reasonably pertinent to the particular problem with which the applicant was concerned, See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), it would have been obvious to one of ordinary skill in the art to include the programmable controller which adapts to both normal operation and service diagnostic to Krocker because it would provide for the purpose of providing a

programmable controller that could be programmed to handle multiple functional features without a need for external devices.

Furthermore, Abrams teaches a display unit configured to display servicing information such as contractor contact information when a service event is needed to an HVAC system (see C 5 L 4-10 and C 4 L 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the display of servicing information of Abrams with the system of Krocker because it would provide the customer with readily contact to an HVAC contractor when a service event is needed.

Regarding claim 36

Krocker teaches the invention including an HVAC system, comprising: one or more components for regulating a set of environmental conditions within a structure, and a controller operatively connected to said one or more components, said controller including an interface for programming a service event display mode in the controller, and display means for displaying controller information when a service indicator is detected in at least one of said one or more components is taught as a service tool connected to an HVAC controller for information regarding the type and configuration of the components of the HVAC system and display all diagnostic results to a service technician and also to an expert observer (see abstract and paragraphs 42 and 43).

Krocker does not specifically teach an HVAC controller configured to control one or more components of the HVAC system during normal operation of the HVAC system, said HVAC controller including an interface for programming a service event; display means for

displaying servicing information when a service event is needed in at least one of said one or more components.

However, the concepts and advantages of having one controller that is configured to control during normal operation and also adapted to determine one or more service events occurred with the system is well known and expected in the art. U.S. Patent 5,841,112 of Brooks et al. discloses a programmable controller for a cook top which is programmed to effect many features including features directly relate to service diagnostic as well as relating to normal operation of the cook top (see C 5 L 30-33). Since the Brooks reference is reasonably pertinent to the particular problem with which the applicant was concerned, See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), it would have been obvious to one of ordinary skill in the art to include the programmable controller which adapts to both normal operation and service diagnostic to Krocker because it would provide for the purpose of providing a programmable controller that could be programmed to handle multiple functional features without a need for external devices.

Furthermore, Abrams teaches a display unit configured to display servicing information such as contractor contact information when a service event is needed to an HVAC system (see C 5 L 4-10 and C 4 L 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the display of servicing information of Abrams with the system of Krocker because it would provide the customer with readily contact to an HVAC contractor when a service event is needed.

Regarding claim 37

Krocker teaches the invention including an HVAC controller for use in controlling one or more components of an HVAC system, the HVAC controller comprising: a controller adapted to determine if one or more service events occurred for one or more the components of the HVAC system is taught as a service tool connected to an HVAC controller for information regarding the type and configuration of the components of the HVAC system and display all diagnostic results to a service technician and also to an expert observer (see abstract and paragraphs 42 and 43).

Krocker does not specifically teach a controller configured to control one or more components of the HVAC system during normal operation of the HVAC system, said controller adapted to determine one or more service events; notifying means for notifying a service provider when a service event is needed.

However, the concepts and advantages of having one controller that is configured to control during normal operation and also adapted to determine one or more service events occurred with the system is well known and expected in the art. U.S. Patent 5,841,112 of Brooks et al. discloses a programmable controller for a cook top which is programmed to effect many features including features directly relate to service diagnostic as well as relating to normal operation of the cook top (see C 5 L 30-33). Since the Brooks reference is reasonably pertinent to the particular problem with which the applicant was concerned, See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), it would have been obvious to one of ordinary skill in the art to include the programmable controller which adapts to both normal operation and service diagnostic to Krocker because it would provide for the purpose of providing a programmable controller that could be programmed to handle multiple functional features without a need for external devices.

Furthermore, Abrams teaches notifying means for notifying a service provider when a service event is needed (see C 3 L 55-67 and C 5 L 36-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the notification system of Abrams with the system of Krocker because it would provide the customer with readily contact to an HVAC contractor when a service event is needed.

Regarding claims 2, 3, 20 and 31

Abrams teaches wherein said servicing information includes a graphical representation of a logo and/or a telephone number (see C 5 L 3-10).

Regarding claims 4 and 21

Abrams teaches wherein said servicing information includes a service event code (see C 4 L 30-41).

Regarding claims 5 and 22

Abrams teaches wherein said servicing information includes a description of the service event (see C 4 L 43-52).

Regarding claims 6 and 32

Abrams teaches wherein said controller determines if a service event occurred by receiving a service event indicator from at least one of said one or more components (see C 4 L 43-52).

Regarding claims 7 and 33

Abrams teaches wherein said controller determines if a service event occurred by determining if an equipment service event timer expired (see C 4 L 53-62).

Regarding claims 8 and 34

Abrams teaches wherein said service event is activated by a user (see C 3 L 40-47).

Regarding claims 9, 24 and 35

Abrams teaches wherein said one or more components are one or more of a heating unit, a cooling unit, a ventilation unit, a filtration unit, a UV lamp unit, a humidifying/dehumidifying unit, a local sensor, and a remote sensor (see C 3 L 40-43).

Regarding claims 10 and 28

Abrams teaches wherein said display unit comprises a touch screen (see C 3 line 47-51).

Regarding claims 11 and 29

Abrams teaches wherein said display unit comprises an LCD panel (see C 4 L 1-5).

Regarding claim 12

Krocker teaches a data input port coupled to the controller for uploading data to the controller (see paragraph 37).

Regarding claim 16

Abrams teaches wherein the controller determines if one or more service events occurred for one or more the components of the HVAC system by polling at least selected components of the HVAC system (see C 4 L 43-52).

Regarding claim 17

Abrams teaches wherein at least some of the components of the HVAC system communicate with the controller over a network (see C 3 L 55-67).

Regarding claim 18

Abrams teaches wherein at least some of the components of the HVAC system communicate with the controller via an I/O interface (see C 3 L 55-67).

Regarding claim 23

Abrams teaches wherein said system includes an HVAC system (see C 1 L 7-10).

Regarding claim 38

Abrams teaches wherein the service provider is one of a contractor, a service referral organization, a utility, a retailer, or a manufacturer (see C 1 L 60-64, "HVAC contractor").

Regarding claim 39

Abrams teaches wherein the notifying means notifies a different service provider for two different service events (see C 4 L 6-21).

7. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krocker in view of Abrams and further in view of U.S. Patent No 6,741,915 ("Poth").

Regarding claim 13

Krocker and Abrams do not specifically teach the controller is adapted to receive a graphical representation of a logo via the data input port, and wherein the display unit is configured to display the logo when a service event is determined by the controller.

However, Poth teaches a programmable digital thermostat including a serial port within the casing to communicate with an external device (see C 6 L 18-27) for the purpose of uploading and/or downloading data between the thermostat and the external device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the data transferring mechanism of Poth with the system of Krocker because it would provide for the purpose of uploading and/or downloading data between the thermostat and the external device.

Regarding claim 14

Poth teaches wherein the data input port is a wired port (see C 4 L 52-53).

Regarding claim 15

Poth teaches wherein the data input port is a wireless port (see C 4 L 58-60).

8. Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krocker in view of Abrams and further in view of U.S. Patent No. 5,877,957 ("Bennett").

Regarding claim 25

Krocker and Abrams do not specifically teach the system includes a security system.

However, Bennett teaches an automation system for controlling programmable devices by using dialog for training devices, wherein the devices includes a home security system (see C 1 L 30-32) for the purpose of providing an inexpensive, easily installed, and easily programmable and reprogrammable system by a user with no experience in programming (see C 2 L 16-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the automation system of Bennett with the system of Krocker because it would provide for the purpose of providing an inexpensive, easily installed, and easily programmable and reprogrammable system by a user with no experience in programming.

Regarding claim 26

Bennett teaches the system includes a lighting system (see C 1 L 25-27).

Regarding claim 27

Bennett teaches the system includes a sprinkler or drip water system (see C 1 L 25-28).

9. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,824,069 ("Rosen").

Regarding claim 40

Rosen teaches the invention including a thermostat for controlling an HVAC system having one or more HVAC components, the thermostat comprising: a housing; a display secured relative to the housing; a controller, situated in the housing, in communication with the display; the controller adapted to control the HVAC system is taught as a programmable thermostat system having a processor, situated in a housing, a touch screen LCD display in communication with the processor is also situated in a common housing (see C 3 L 14-22); The processor adapted to control a heating and cooling system under normal condition (see C 3 L 53 to C 4 L 8).

Rosen does not specifically teach the controller further adapted to determine if one or more service events occurred for one or more the components of the HVAC system without receiving control signal from outside of the housing.

However, the concepts and advantages of having a controller that is operated under normal operating condition and further adapted to determine one or more service events occurred with the system without receiving control signal from outside of the housing is well known and expected in the art. U.S. Patent 5,841,112 of Brooks et al. discloses a programmable controller for a cook top which is programmed to effect many features including features directly relate to service diagnostic as well as relating to normal operation of the cook top (see C 5 L 30-33). Since the Brooks reference is reasonably pertinent to the particular problem with which the applicant was concerned, See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992), it would have been obvious to one of ordinary skill in the art to include the programmable

controller which adapts to both normal operation and service diagnostic to Rosen because it would provide for the purpose of providing a programmable controller that could be programmed to handle multiple functional features without a need for external devices.

10. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,608,560 ("Abrams") in view of U.S. Patent Application Publication No. 2003/0195640 ("Krocker").

Regarding claim 41

Abrams teaches the invention including a method for using a thermostat to alert a user of service events that correspond to the operation of one or more HVAC components, the method comprising: using the thermostat to monitor the operation of one or more of the HVAC components over the lifetime of the thermostat is taught as a service assistance device embodied within a thermostat which monitor the operation of one or more HVAC components upon a request by a user (see C 4 L 8-17).

Abrams does not specifically teach detecting a service event related to the operation of one or more of the HVAC components; and alerting the user of the detected service event via the thermostat.

However, Krocker teaches a service tool connected to an HVAC controller for information regarding the type and configuration of the components of the HVAC system determined by the controller and display all diagnostic results to a user (see abstract and paragraphs 42 and 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the diagnostic system of Krocker with the system of Abrams because it would provide for the purpose of monitoring, analyzing, servicing or diagnosing a computer or control system to obtain specific information about the status, condition and operational capabilities of the system.

Regarding claim 42

Krocker teaches the invention including wherein said monitoring the operation of one or more HVAC components is reoccurring or continuous is taught as a service technician is connecting to monitor the operation of one or more HVAC components is reoccurring for maintaining, repairing, troubleshooting or studying the system as needed (see paragraph 43).

Response to Arguments

In the remarks, applicants' argue that cited reference fails to teach:

I) A controller configured to operate during normal operation of the HVAC system and also adapted to determine if one or more service events occurred for one or more of the components of the HVAC.

In response to applicants' arguments

I) The concepts and advantages of having one controller that is configured to control during normal operation and also adapted to determine one or more service events occurred with the system is well known and expected in the art. For example, U.S. Patent 5,841,112 of Brooks et al. discloses these features with a programmable controller for controlling a cook top which is

programmed to effect many features including features directly relate to service diagnostic as well as other features relate to normal operation of the cook top (see C 5 L 30-33).

It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, although the example of Brooks is not exactly in the field of applicants' endeavor, however, it should be cleared that the features and functionality of Brooks' controller is reasonably pertinent to solve the particular problem with which the applicant was concerned, i.e. to have a flexible programmable controller to handle multiple tasks. Thus, it would have been obvious to one of ordinary skill in the art to include the programmable controller which adapts to both normal operation and service diagnostic to Krocker because it would provide for the purpose of providing a programmable controller that could be programmed to handle multiple functional features without a need for external devices.

Furthermore, in response to applicants arguments that only the service technician who determines if one or more service events occurred, and that none of the components of the HVAC system made any determination. However, prior art Krocker teaches a service tool uses the gathered information available from an HVAC controller to perform diagnostic functions. The diagnostic results are displayed in form of graphical representations in order to help the service technician in determining a service event such as maintaining, repairing, troubleshooting or studying the system as described in paragraphs 42 and 43. Hence, without the help of service tool, it would not be easy for the service technician to determine any service event by any

component of the HVAC system. Therefore, it should obvious to one of ordinary skill in the art that the service tool of Krocker indirectly determines any service event needed to be perform by displaying diagnostic information in graphical format.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.** Responses may also be faxed to the **official fax number (571) 273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Pham
Patent Examiner

November 5, 2006